Small Business Innovation Research/Small Business Tech Transfer

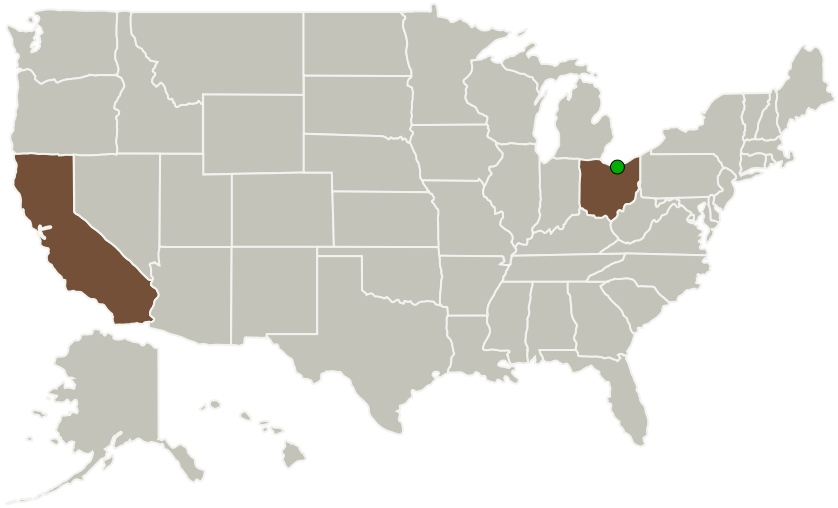
Novel Instrumentation for In Situ Combustion Measurements, Phase II

Completed Technology Project (2010 - 2013)

Project Introduction

The objective of the Phase I is to develop, demonstrate and test a novel instrument based on laser absorption diagnostics for fast, in situ measurements of important parameters (static gas temperature, bulk gas velocity, and gas concentration) in the high speed flows typical in NASA propulsion test facilities. In addition, the instrument will be easy to move (translate) during operation and thus allow measurements at different locations during a test run.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Los Gatos Research	Lead Organization	Industry	Mountain View, California
Glenn Research Center(GRC)	Supporting Organization	NASA Center	Cleveland, Ohio

Primary U.S. Work Locations	
California	Ohio

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Project Transitions

January 2010: Project Start

April 2013: Closed out

Closeout Summary: Novel Instrumentation for In Situ Combustion Measurements, Phase II Project Image

Closeout Documentation:

- Final Summary Chart Image*(https://techport.nasa.gov/file/139290)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Los Gatos Research

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

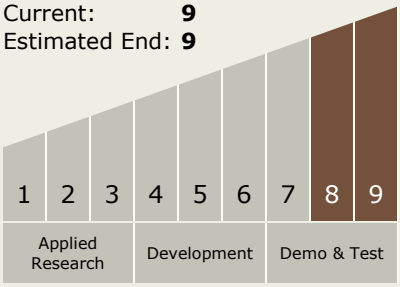
Carlos Torrez

Principal Investigator:

Douglas S Baer

Technology Maturity (TRL)

Start: **8**
Current: **9**
Estimated End: **9**



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Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.3 In-Situ Instruments and Sensors
    - TX08.3.2 Atomic and Molecular Species Assessment

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System